DOCUMENT RESUME

ED 233 709 IR 010 800

AUTHOR	Hanssen, Andrew; And Others
TITLE	Development Communication Report No. 42, June 1983.
INSTITUTION	Agency for International Development (Dept. of State), Washington, D.C. Clearinghouse on Development Communication.
PUB DATE	Jun 83
NOTE	18p.
PUB TYPE	Collected Works - Serials (022) -- Reports - Descriptive (141)
JOURNAL CIT	Development Communication Report; n42 Jun 1983.
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Adult Basic Education; Community Development; Design Requirements; *Developing Nations; *Educational Radio; Educational Television; *Health Education; *Instructional Materials; Literacy Education; Material Development; Production Techniques; *Puppetry; *Rural Development
IDENTIFIERS	Botswana; Dominican Republic; Ecuador; Ethiopia; India; Kenya

ABSTRACT

In addition to the lead article by Andrew Hanssen, Steven Kozlow, and Anne Olsen, this publication contains the following articles related to communications in developing nations: (1) "World Communications Year, 1983"; (2) "Field Research in Botswana Leads to More Relevant Media Production," by Chris Garforth; (3) "Kenya Explores New Ways of Producing Literacy Materials for Basic Education," by Muriithi Kinyua; (4) "Changing Health Behaviors in the Hospital Setting," by Bette Booth; (5) "Rural Development through Puppetry," by Bunker Roy; (6) "Information Resources; Places to Contact, Publications to Order," by Judy Brace; (7) "Radio Formats Offer Choices," by Esta de Fossard; (8) "Community Radio in Ecuador Meeting People's Needs," by Kurt Hein; and (9) "Housing Finance Software Package." In addition, two columns discuss current resource materials: "A Communicators Checklist" offers book reviews by Joan Dassin, Maurice Imhoof, and Michael Laflin, and Barb Minor reviews five ERIC listings in "On File at ERIC." (LMM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED233709

Development Communication Report

No.42

June83

IR010800

development communication report

1414 22nd Street, N.W.
Washington, D.C.
20037 USA

June 1983
No. 42

RADECO: Radio-Based Primary Education in the Dominican Republic

by Andrew Hanssen, Steven Kozlow, and Anne Olsen

Many of the governments of the developing world are facing economic constraints which prevent them from adequately providing their school-age populations with educational services. The Dominican Republic, like many other developing nations, cannot accommodate the demand for access to its formal school network by its burgeoning school-age population. Scattered throughout the country's Southwest Region are literally hundreds of communities containing tens of thousands of children who are denied the opportunity for education because the government simply cannot afford to build enough schools and train enough teachers. It is increasingly evident that the Dominican government will not in the near future have the resources to substantially expand the formal school system.

The approximate out-of-school population in the Southwest Region of the Dominican Republic is 120,000. The cost of construction of a single classroom there is estimated at US$14,000. To incorporate 120,000 additional students into the formal school system, with each classroom serving 110 students in two sessions a day, would require a capital investment of more than US$15 million. In addition, the recurrent expenses for such items as personnel services, materials, and equipment that an additional 120,000 students would require would total more than $5 million yearly. A more cost-effective strategy of education must be developed if the Dominican government is to provide all of its people with basic education. And once developed, a successful strategy could be replicated around the world.

InterAmerica Research Associates was contracted by AID's Bureau for Science and Technology to implement an innovative approach to primary education in the Dominican Republic.

Barahona, a town of 15,000 people in the Southwest part of that small Caribbean republic, is the base for the Radio Educativo Comunitario (RADECO) Project, which explores the use of radio as a means of teaching basic literacy and numeracy skills to children between seven and fourteen years of age who do not have access to formal schools.

The methodological base for the RADECO project was laid by the AID-funded Radio Mathematics in Nicaragua (RMN) program, developed in collaboration with Stanford University in the mid-1970s. The Radio Mathematics in Nicaragua project demonstrated that students within a formal classroom will respond to and learn mathematics from a radio broadcast. In fact, the RMN students scored nearly a full standard deviation higher on an end-of-year math test than did a control group: students in comparable classrooms who did not receive radio instruction. In the course of that project, a sophisticated system of formative evaluation was developed and standardized. RADECO seeks to develop a similar program for primary-level reading and to adapt the RMN math materials to the unique circumstances of its own nonformal education program.

(**RADECO** continued on page 11)

In this issue . . .

WCY 83 and USTTI 1
RADECO Project Teaching Rural Children in the D.R. 1
Field Research with Farmers in Botswana 3
Producing Low-Cost Literacy Materials in Kenya 4
Puppets Changing Attitudes in India 5
Information Resources Roundup ... 7
A Communicator's Checklist 8
On File at ERIC 12
Radio Formats Offer Diversity 14
Successful Community Radio in Ecuador 16

ANNEE MONDIALE DES COMMUNICATIONS
WORLD COMMUNICATIONS YEAR
AÑO MUNDIAL DE LAS COMUNICACIONES
1983

DCR *is honored to be among the publications approved by the U.S. Council for World Communications Year 83 to display the official WCY 83 logo.*

Readers of this newsletter will be interested to learn of one wide-ranging program which is an official initiative of WCY. The U.S. is sharing its telecommunications expertise with developing countries around the world in a joint venture between major American telecommunications firms and the U.S. government. The new program, the U.S. Telecommunications Training Institute (USTTI), is offering programs at the senior management and advanced technical levels in an effort to strengthen the planning and operation of telecommunications systems as a part of national development.

Private sector firms are providing the training, equipment, and funding for the Institute, which is administered by a Board of Directors representing both industry and government. The United States government has served as a catalyst in bringing the corporations into the program and in establishing the course curriculum in discussions with representatives of developing nations.

All programs are offered without charge to participants, although trainees, or their sponsoring governments or organizations, are responsible for securing the individual's subsistence and travel expenses. Limited fellowships to help underwrite some of these expenses may be available through USTTI.

The first of these programs was held this spring, when USIA and USTTI together sponsored an unusual project entitled *Communications Technology and Policy* which brought together 28 people from 26 countries on a five-week program in the United States.

(**WCY 83** continued on page 2)

A publication of the Clearinghouse on Development Communication
Supported by the Bureau for Science and Technology of the U.S. Agency for International Development

"World Communications Year is a specific set of activities forming part of the United Nations system's action to foster balanced social and economic development."

***From* Principles and Objectives of WCY**

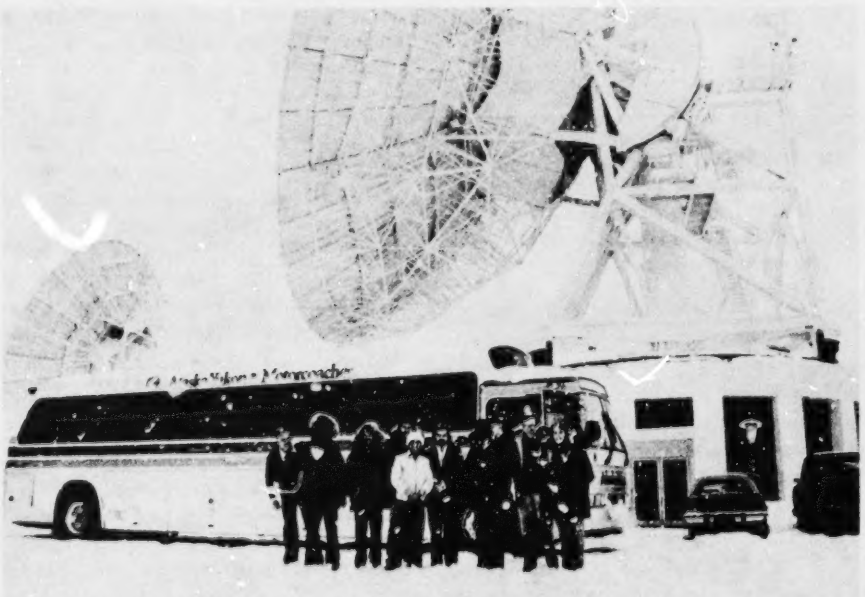
(**WCY 83** continued from page 1)

The project, administered by the Academy for Educational Development, was under the overall auspices of USIA's International Visitor Program. Participants came from such diverse countries as England, Honduras, Israel, The Gambia, Kenya, Australia, Ireland, and Lebanon. They were all high-ranking people from the telecommunications sectors of their countries; many had engineering backgrounds; several have represented their country at major international meetings. They were keenly interested not only in the new telecommunications technologies being developed in the United States, but in their applications and in the policy options surrounding them.

The project opened in early April in San Francisco, California, where Dr. Wilbur Schramm delivered the opening address, "The History of the Future." Other speakers and experts met with the group and discussed a range of topics from satellite systems to fiber optics to office automation and digital switching. The visitors were received at three companies whose products typify technological advances in the United States. The visitors then traveled to Alaska, where, as guests of Alascom (the Alaska Telephone Company), they spent a week of in-depth study of a vast underpopulated region linked almost entirely by satellite communication. Flying next to Florida, the visitors were joined by eleven more international participants for a schedule that included visits to NASA, an earth station manufacturer, a seminar by the Academy for Educational Development, and attendance at the International Association of Satellite Users annual conference.

The final phase of the project took place in Washington, D.C., and focused almost entirely on telecommunications policy issues, domestic and international. Wide-ranging discussions with panelists addressed such topics as "Deregulation of Common Carriers in the United States," "International Telecommunications Legislation," and "The Role of a Domestic Satellite Carrier." Representatives from 12 United States telecommunications corporations met with the visitors to discuss their countries' training needs in the short and long term. These were the corporations who are providing specialized training programs beginning in June 1983 for individuals from the developing world. The project gave senior officials from the companies and the various countries a unique opportunity to help shape future programs of the U.S. Telecommunications Training Institute.

A final weekend 'retreat' in Maryland enabled the visitors and a small group of American experts to discuss important aspects of the global telecommunications revolution that is now taking place and that will affect the lives of so many in the future. Such meetings and discussions directly support the principles of World Communications Year.



Alascom photo by Sean Reid

A snowstorm delights participants of the Communications Technology and Policy program sponsored by USIA and USTTI on their visit to Bartlett Earth Station, Talkeetna, Alaska.

Future Courses

The first technical course USTTI will offer is a six-week Radio Spectrum Management Course, offered by U.S. government agencies and scheduled to start in mid-June in Washington, D.C. A four-week training program in Telecommunication Systems: Network Design and Management, offered by AT&T, is scheduled to begin in mid-July at the AT&T training center near Princeton, New Jersey.

Other courses to be offered later in the fall and winter of 1983 include:

- Information Systems for Telecommunications Management, by IBM;
- Satellite Communications Management and Technology, by COMSAT, Hughes Aircraft, and the AID Rural Satellite Program;
- Broadcast Systems Operations and Management Technology, by Harris Corporation;
- Telecommunications Transmission Systems and Technology, by SCS Telecom, Collins Transmission Systems Division of Rockwell International, and GTE;
- Telecommunications Technology, by MCI; and
- Telegraph and Telex Systems Design, Maintenance, and Management, by Western Union and TRT.

The Academy for Educational Development is assisting USTTI in its operations. For further information about the U.S. Telecommunications Training Institute contact USTTI, Academy for Educational Development, 1414 22nd Street, N.W., Washington, D.C. 20037, U.S.A. Telephone: (202) 862-3857; telex: ACADED WSH 89660; cable: ACADED Washington, D.C. ■

By Mary W. Brady, Senior Project Director, Academy for Educational Development.

Development Communication Report, published quarterly by the Clearinghouse on Development Communication, has a circulation of over 5,000. The newsletter is available free of charge to readers in the developing world, and at a charge of US $10.00 per year to readers in the industrialized countries.

A center for materials and information on important applications of communication technology to development problems, the Clearinghouse is operated by the Academy for Educational Development, a nonprofit planning organization, and supported by the Bureau for Science and Technology of the U.S. Agency for International Development as part of its program in educational technology and development communication.

The views expressed in *Development Communication Report* are those of the authors and not necessarily those of its sponsors. Original material in the *Report* may be reproduced without prior permission provided that full credit is given and that two copies of the reprint are sent to the Editor.

Readers are invited to submit typed manuscripts of no more than 1000 words, and to send in photographs.

Field Research in Botswana Leads to More Relevant Media Production

by Chris Garforth

In interpersonal communication, an extension worker can adjust the way he or she presents ideas in immediate response to audience reaction. A media communicator, however, must often determine the form and content of his message before there is any chance for feedback. This article, excerpted here and reproduced by permission from Reading Rural Development Communications Bulletin 16, *examines the experience in Botswana which shows that it can be possible to obtain feedback from rural people to help design media relevant to their perception of their problems, to their technical knowledge, and to their existing practices.*

An important part of extension worker training should be the development of sensitivity to other people's points of view, other people's ways of interpreting and talking about the world around them.

But the problem is not so easy to solve when media are used as channels of communication. In a face-to-face dialog, the 'content' and the language of the communication act is developed on the spot, in response to the feedback between the two people involved. In media communication, on the other hand, the content, form, and language are usually determined before there is any chance of feedback. How does the person designing the media decide what information or ideas to include, or what concepts and words will be most readily understood, or with what attitudes and preconceptions the audience will approach a particular topic? There is a further problem too; in face-to-face dialog, we can quickly tell if we are talking too quickly or too slowly, if we are boring the other person, if he or she has not understood a particular phrase. In media communication, there is usually no possibility of adjusting the speed and complexity of the communication.

These are genuine problems. There is plenty of evidence from around the world to suggest that media communication is often ineffective because it is trying to share irrelevant information, in incomprehensible language (and that includes both words and pictures), in inappropriate forms. One way of tackling the problem is to include some systematic research in the process of designing and producing media. Research which tries—in the context of a particular media project or campaign—to answer some of the questions posed above. This has been done in Botswana through the establishment of an Action Research Unit within the Agricultural Information Service of the Ministry of Agriculture. The job of this unit is to provide media producers—radio producers, journalists, artists, photographers—with information about their audience that will help them produce *comprehensible media* that contains *relevant information*. The two main ingredients of this research are:

1. topic research, which includes studies of the audience's knowledge, attitudes, and practices concerning the topic in question; and
2. pretesting.

A couple of examples will show how action research has improved communication between agricultural extension workers and rural people.

Grass Fires: Information Needed, Not Persuasion

First, the Grass Fires Campaign. Uncontrolled grass fires are a regular feature of the dry winter months in Botswana. They destroy vast tracts of grazing land, exposing a delicately balanced eco-system to the ravages of wind and the heavy showers of next spring. Cattle and wild animals die or go hungry. Homes are often threatened. The Government has passed laws forbidding the lighting of fires in fields or in open countryside, except under the strictest control. In addition, regular educational campaigns are mounted, using radio, leaflets, posters, and village meetings to publicize the problems and encourage more care in the use of natural resources.

An action research study in 1978 showed that it was time for a change in approach. Another campaign was to be planned and for the first time an element of action research was included at the early stages. A survey of people's knowledge and attitudes about grass fires was carried out in a random sample of villages, and public discussion meetings were held in the same villages. This research showed that the problem and the causes of grass fires were already widely known; there was no need to keep telling villagers of the dangers—they were only too well aware of them. What they did want to know was how they could minimize the dangers.

During the research we had expected to encounter defensive attitudes concerning grass fires, because fire is still used clandestinely by hunters, for parasite control, and to encourage the growth of new grass. But in fact attitudes towards the idea of controlling and preventing grass fires were extremely positive. The overwhelming response was that any benefits from fire in grazing areas were far outweighed by the damage caused. The research showed further that the concept of fire breaks was unfamiliar to most people, and that the legal provisions relating to grass fires were not widely known. These findings provided two major themes for the campaign: the planning and construction of fire breaks, and the legal duties and responsibilities of rural people under the Herbage Preservation Act. A leaflet explaining the legal provisions was produced, together with a slidetape program describing how one village had set about the planning and construction of a network of fire breaks to protect their village and farm lands. Although this campaign was only one small part of a long-term educational program, the research that went into it provided those responsible for that program with new insights into the existing knowledge, attitudes, and information needs of rural people.

"There is plenty of evidence from around the world to suggest that media communication is often ineffective because it is trying to share irrelevant information, in incomprehensible language . . . in inappropriate forms."

Livestock Parasites: Learning From Farmers

The second example shows what can happen if this kind of preliminary research is not done. A slidetape program, together with other materials, was produced on the subject of parasite control in cattle and other livestock. This was part of a campaign to encourage farmers to take regular action against both external and internal parasites which carry disease as well as cause general debilitation. The slidetape program was based on the latest technical information available and was prepared by extension workers who had had several years field experience. It began with a general warning about the damage caused by parasites and then pursued the two themes of external parasites and internal parasites.

When the materials were pretested it became obvious that this structure was not as clear as had been hoped. Unfortunately, not only were the Setswana words unfamiliar to many farmers, the concepts themselves were not those commonly used by livestock owners. They spoke of 'ticks' (which are the most serious external parasites) and they spoke of 'worms.' But they did not use an all-embracing category of 'parasites' to link these two specific concepts. This use of unfamiliar categories hindered communication in this case. Most farmers found the slidetape program confusing.

During the pretesting, it also became clear

(continued on page 6)

Kenya Explores New Ways of Producing Literacy Materials for Basic Education

by Muriithi Kinyua

The 1980s should be regarded as years of innovation in education, particularly in adult literacy. For most Third World countries, the 1960s were years of experiment with methods and materials. These were years of reconstruction, and most of the newly independent countries of Africa were busy trying to sort out their development priorities. Many governments recognized the value of literacy as a tool for national development and supported Unesco's World Experimental Literacy Program. During this time, most of them had high hopes of catching up with the more industrialized nations. However, their hopes of achieving a high growth rate were crushed by the oil crisis of the early 1970s which affected the economies of both developed and developing countries. Educational programs which had enjoyed a high priority had now to compete for the scarce financial resources with other development projects. It is not surprising, therefore, that for most Third World countries, innovation in education in the 1980s will mean making the most out of their meager resources and becoming more self-reliant, for as foreign aid continues to shrink, countries' educational needs continue to grow.

Background

Kenya, like many Third World countries, is faced with the problem of high illiteracy. According to a survey carried out in 1976, slightly more than half of the adult population was found illiterate. In fact, when launching the National Literacy Campaign in December, 1978, the President of Kenya, His Excellency Daniel arap Moi, observed, "It is estimated that 35 percent of all male Kenyans above the age of 15, and 70 percent of all female Kenyans in the same group, cannot read and write." By declaring war on illiteracy, the President opened the way for all Kenyans to develop their abilities, enrich their lives, and participate more fully in the social, economic, cultural, and political life of this country. (See "Kenya's New Literacy Program," by Judy Brace, *DCR* 39, Sept. '82.)

That was four years ago and since then a lot of development has taken place. To realize the dream of a fully literate nation, a Department of Adult Education was created in 1979. By April the same year, the Department had recruited 3,000 full-time literacy teachers who were given a two-week course in methods of teaching adults reading, writing, and numeracy. On completing the introductory course, they went back to their villages to start literacy classes. Another 5,000 part-time teachers were recruited to support the program, and by 1981, the number of teachers involved in the program had grown to about 15,000.

The next major problem which faced the Department after the recruitment of teachers was providing learning materials for the adults who had continued to enroll in large numbers. For a country with over 42 local languages, developing reading materials can be an enormous problem. As most people involved in adult education are aware, the process of writing primers is a very slow one involving surveys of learners' needs, linguistic surveys, and organization of writers' workshops. If the primer being developed is to be functional, a period of pretesting must be allowed. It might take months or even a year before a primer finds its way into the literacy class. The bureaucratic tender system used to award printing contracts in many Third World countries does not make the production of primers any easier.

Writing primers for the Department of Adult Education has not been a simple task. Since 1979 we have managed to produce primers in only 15 languages. Furthermore, the primers so far produced represent large geographical and linguistic areas which do not necessarily have homogeneous learning problems. This makes it hard for the primers to focus on any specific learning needs.

The Low-Cost Print Media Project

As we have already noted, with the general economic recession in the Third World countries, progress is no longer a matter of seeking financial allocations to solve development problems, but of trying to find more cost-effective means of solving them. Kenya is no exception, and with the prevailing economic climate, the term "low cost" was bound to gain more prominence. In fact, "low cost" has come to be equated with appropriate educational technology.

The Department seems to have recognized the problems with developing primers, and, in 1980, with the help of the British Council, it initiated an experimental project in low-cost print media. At that time, some teachers who had no primers had started to improvise in one way or another by producing their own teaching materials; those who could not produce materials were using books meant for children. The questions which were worrying the Department were: How could the shortage of learning materials be alleviated? Was it possible to provide teachers with enough skills to help them overcome their daily teaching problems? How could progress be achieved in the most economic way?

What the Department wanted most was to provide teachers with skills to enable them to solve their teaching problems. The aim of the low-cost print project was therefore two-fold:

i) To test whether it was possible to reduce cost and time by producing materials locally instead of relying on national headquarters;
ii) To improve teachers' skills in the design and production of learning materials.

To try the new idea, two pilot projects were begun in two districts of Kenya, Meru and Kisumu. Depending on their success, they would be expanded to cover the whole country.

Workshops to Train Trainers

The first step was to organize a training workshop for the facilitators who would train teachers and monitor the project in the pilot districts. A two-week workshop was organized in Meru in November 1980. About 30 participants drawn from the pilot districts, the national headquarters, the Institute of Adult Studies, University of Nairobi, and the British Council attended. During the two weeks, the first curriculum for the low-cost project was discussed. The facilitators also learned new skills and methods which they were later to pass on to the teachers. Following this preparatory workshop, the facilitators returned to their respective districts ready to organize the first workshops. From January to June 1981, the two districts organized a series of workshops to train teachers in low-cost materials production techniques. About 290 teachers were trained in Meru District on how to produce low-cost materials and use them effectively with learners. They learned survey techniques to determine learners' interests, explored the use of locally available resources for teaching aids, and produced and pretested materials with learners. They also learned how to operate simple reproduction equipment like the handpress and duplicator. Among the materials they produced were word cards, syllable cards, booklets, and picture cards. Kismu District was able to train 75 teachers.

Evaluation reports from the two pilot districts were used to refine the low-cost training curriculum. It was generally agreed that the low-cost training workshops should help teachers acquire the skills to:

- conduct surveys to determine the interests and characteristics of local people;
- produce simple visual aids like word cards and syllable cards;
- plan illustrations and booklets;
- use simple graphic techniques and lettering;
- use simple reproduction equipment like handpress and duplicators;
- improvise.

(continued on page 10)

Changing Health Behaviors in the Hospital Setting

by Bette Booth

Studies indicate that people are most likely to change health-related behaviors if they are intercepted in a critical health situation. The Ethio-Swedish Pediatric Clinic in Addis Ababa, Ethiopia, is attempting to change health behaviors by intercepting parents accompanying their children at the out-patient and in-patient wards. Parents, both mothers and fathers, are presented with a 20-minute cassette tape on a health problem and given a supplementary pamphlet with the same information. Both the cassette and booklet are written in Amharic, which is reportedly spoken by 70 percent of the population. Topics covered include: vaccinations, breastfeeding, supplementary weaning foods, communicable diseases, accident prevention, intestinal parasites, and harmful traditional practices.

The sessions, which last about 45 minutes, are a welcome break for the waiting parents. While parents and some older children gather, a cassette of lively local music is played to help people feel comfortable and establish an informal atmosphere. The nurse gives a brief introduction and then plays the health cassette. Group discussion which follows gives the parents the opportunity to ask questions and clarify points. At the end of the meeting the participants are given a five- to seven-page pamphlet which gives the same information in more detail. The recent literacy campaign in Ethiopia has reportedly raised literacy from 7 to 45 percent, and officials believe that at least one person in every home can read and serve as a translator for the materials.

Nurse Mulu-Brhan Djote, Maternal and Child Health Coordinator, and some of the ward nurses write the scripts and produce the cassettes. The pamphlets, which were originally funded by UNICEF, are now printed by the Education Section of the Ministry of Health. Nurse Djote hopes to incorporate formative evaluation of the impact of the cassette-pamphlet program. ■

For further information, contact Nurse Mulu-Brhan Djote, Maternal and Child Health Coordinator, Ethio-Swedish Pediatric Clinic, Addis Ababa, Ethiopia.

Rural Development through Puppetry

by Bunker Roy

This article from India illustrates what impact appropriate communication can have at the village level. Folk media and traditional interpersonal communication for development are sometimes overlooked in favor of mass media and a dazzling array of technical communication devices. Here, we are reminded of what one charismatic leader using traditional media for change can accomplish at the grassroots level.

If there is one resource India's planners and policy makers have grossly and criminally neglected for the socio-economic development of the poor in the rural areas, it is the traditional communication media. While a hot and pointless debate rages on over radio and television, and our experts are squabbling over which is the best and most effective medium of spreading the message, so to speak, we are allowing this incredible human skill of communicating with each other to die. A great resource is staring us in the face, and we are either unable or too stupid to recognize it. This failure indicates a bankruptcy of ideas and imagination which should be a cause of much concern.

In the Sixth Plan Document of the Government of India, published by the Planning Commission, traditional communication media is mentioned under the chapter relating to culture.

Natural Communication Resources Overlooked

Culture? Consigning these communication skills to history and keeping them in a glass case? When half the 600,000 villages in India already have roving theatre groups, puppeteers, oral historians, and minstrels, living a miserable existence, but possessing the art of reaching the people, of conveying ideas simply and at little cost? What on earth is wrong with us? No country in the world has such a rich variety for the asking, accepted and understood by the rural poor with roots in every village in India. Why do we not have the ability or the inclination to recognise this—let alone use it? Really, for aping the West we have no peers. In the West, there is a desperate search for traditional media, and they are very envious of our personalized participatory rural-based communication channels; they are amazed at the callousness and indifference with which we treat these resources.

When such media has been used largely for entertainment, scepticism on the part of the planners for development and extension purposes is understandable. But what is unforgivable is their blinkered approach ruling out the possibility of using local media on an experimental basis and seeing its impact. Village-level communication could change the rural poor's way of thinking and tackling problems, their attitudes to certain government schemes and programs, and, what is more, make people aware of what is happening around them for their own welfare.

Messages that would take months to absorb through radio and television—if absorbed at all—could be conveyed through a puppet show in one evening!

The people who sit in front of the idiot box watching programs of urban dance and drama are not the poor in the villages. They will not understand what is happening. But when puppet shows are organized, everyone attends and they laugh at each other. We know; we have seen this happening in and around Tilonia.

Shankar Singh is an ordinary one-time shepherd boy with an extraordinary skill in puppetry. He worked as a laborer in a famine relief camp in a village in Jawaja (Ajmer District in the Indian State of Rajasthan), soon got himself a degree which he found to be useless, but it helped him get involved in a marginal way in an adult education program sponsored by the Government of India. His attempts at persuading his superiors to let him try his hand at puppetry failed. One day he strolled into Tilonia and very hesitantly suggested that he would like to work with puppets and could he possibly get a job in Tilonia? He got a small group of amateurs from the village together and started holding modest shows in the nearby villages, improvising all the time, weaving stories out of local gossip, bringing out a moral after reshaping true incidents so that everyone in the village could recognize the characters and have a good laugh—much to the discomfort and uneasiness of the village-level government functionary sitting in the audience. It was not only a subtle process of awareness-building, but a crucial way of developing people from non-persons to human beings.

Developing People, Not Things

Shankar Singh is firmly of the view that rural development means, essentially, the development of people—not things. He has been to all the celebrated places where puppetry has been developed as an art, but he has found puppetry too centralised and too divorced from the village situation. He has seen the art and the skill of the rural people taken away from them to be fossilized in buildings located in cities when all along the art should have been alive, changing, adapting, mixing, and absorbing the complexities of rural life. He has managed to do just that with his puppets, giving them an educational bias. But his work is not without struggle.

(continued on page 6)

(**Puppets** continued from page 5)

He went to the annual camel fair in Pushkar, perhaps the largest and most colorful in India, requesting that he be allowed to put up a brief show. The organizers laughed at him. "You? We have renowned artists from all over the country coming here; we have never heard of you—go home." With a little persuasion from a sympathetic bureaucrat, he was given 15 minutes. By the time his show was over four hours later, the audience had swelled to thousands and they would not let him go. He appealed to them all with local jokes in the language and expression they knew best, at the same time getting across serious messages on equality for women, on the evils of untouchability, on the need to pay minimum wages to agricultural laborers, on national integration, and on the ills of moneylending. Largely because of his shows and their apparent impact, the Government included puppet shows as a means for promoting national integration under the 20-Point Program of Mrs. Indira Gandhi in the State of Rajasthan, and schools were encouraged to use the media.

When he started getting requests from remote schools where there was no electricity or even roads, this hardly slowed down Shankar Singh. Often he set up an improvised stage on a bullock cart, got petromaxes organized for lighting, and got the show going. The schools paid his expenses. He started getting invitations to local village fairs, primary and middle schools, local functions to honor a local politician or bureaucrat, and he never missed an opportunity to hit them broadside and make them squirm.

At one function where the guest of honor was the Forest Minister, Shankar Singh taunted him through the puppets and asked him what sort of social forestry program was going on in his State when saplings prepared by children and voluntary groups in the District had not been lifted by the Government for weeks, and when 500,000 saplings barely 100 miles away were lying useless? Within a week tractors and trolleys came and picked the saplings up. The voluntary group had not been able to get to the bureaucrat or minister.

Shankar Singh's legendary puppet character in this area is Jokhim Chacha, a 300-year-old Muslim who has the audacity to call the Chief Minister of the State 'his child,' the Inspector of Schools 'my grandson,' and old respected women in the village 'my daughter'—and get away with it. Jokhim Chacha is in much demand. If a school building needs repair and a contribution from the community is expected, Jokhim Chacha is called and he appeals to the audience. If the attendance in the evening school is dropping, Jokhim Chacha is called to persuade the parents in front of the whole village to get them to agree to start sending their children again. If family planning cases need to be motivated he is roped in; if higher castes are practicing untouchability where some hand pumps have been installed, Jokhim Chacha is dispatched to settle it amicably; if the poor have to be shown how moneylenders are bleeding them dry and keeping them poor, only Jokhim Chacha can do it. In many villages moneylenders have come to him quietly and tried to bribe him to stop the show. Their business, they reluctantly confess, suffers badly after people have seen his show.

"Radio and television are not half as powerful as this medium because puppetry invites, indeed demands, the participation of the people in their own education."

Jokhim Chacha is Shankar Singh's creation. No one else, we have found, can handle these sensitive topics with so much flair and get away from the village without being stoned. Chacha is the pacifier, he settles disputes, and his name is enough to make children go wide-eyed with awe. He is the carrier of messages, revealing how the village-level government servant manages to keep the poor poor.

Radio and television are not half as powerful as this medium because puppetry invites, indeed demands, the participation of the people in their own education. There is no fixed length for performances. If the audience is alive, shows can go on for hours; if it is dead—and Shankar Singh can make it out immediately—he winds up fast. Since he has a bewildering variety of themes up his sleeve, he makes an effort to pick up local gossip, fresh disagreements between agricultural laborers and moneylenders (and their names), and then uses them much to the delight of the villagers who are amazed that Jokhim Chacha should be so aware of the problems in their village. He weaves these real personalities around themes that have a direct bearing on their everyday lives.

The story of Dukkal, the landless laborer who becomes a farmer after the government gives him land becomes serious when villagers see the rich farmer grabbing that land and murdering him in the process while the government looks on impotently. This, of course, has parallels in real life which cannot be ignored, and has the desired effect on the audience. After a puppet show on minimum wages was put on for rural women working in famine relief camps, months later for the first time in the history of this area, 300 women refused to take the wages because they were being discriminated against and they were being asked to sign for amounts they were not receiving. We traced this rare expression of courage and unanimity to the puppet show.

Fortunately, recognition has not spoiled Shankar Singh. Though his village-made puppets have reached Australia and Switzerland, he himself has no wish to travel where he is not understood. The puppets he has made have generated income for his section to the extent he is now self-supporting. From the 100 villages he has visited, he has managed to collect more than Rs 10,000 from donations and he is training people from other States how to use the puppets effectively. The fact that he is responsible for collective attitudes changing on sensitive issues is a source of much satisfaction for him. The pity is the government still refuses to recognize this skill and resource as an input in rural development. ■

For further information, contact Bunker Roy, The Social Work and Research Centre, Tilonia 305 816, Madanganj, Dist. Ajmer, Rajasthan, India.

(**Field Research** continued from page 3)

that farmers do have their own remedies for ticks. No mention had been made in the campaign materials of these local techniques, either to suggest that they were ineffective or to show how they could be adapted to increase their effectiveness. These various pitfalls could have been avoided if a study had been carried out on existing methods of tick and worm control and on the words and concepts farmers use when talking among themselves about parasites.

Action Research: A Method Not A Methodology

This type of research is called 'action research' because it is action oriented: its sole purpose is to help media producers improve the effectiveness of their communications. It does not set out to generate or test hypotheses about media communication in general; it sets out to provide information that can be used by media producers in planning specific media on a specific topic. In providing this service, action research makes use of a wide variety of research techniques. There is no standard methodology of action research: research methods are selected according to the particular task at hand. For example, in the design and testing of a series of cassette programs and supporting material for use by groups of villagers in Western Botswana, a preliminary series of public meetings was held to discuss what topics should be included. This was followed by more formal surveys to assess what precise information people wanted on each of the selected topics. Attitudes were assessed using simplified attitude

(continued on page 7)

(**Field Research** continued from page 6)

"The important distinguishing feature of action research is not a particular methodology, it is that the results must be immediately useable by those who are to produce the media."

scales. Cassettes, magazines, and flip charts were pretested both within and outside the villages involved in the group meetings, using individual interviews and group discussions. People's conceptual structures were explored in informal discussion; alternatively, more formal methods—such as classification tests of various kinds—could have been used. The important distinguishing feature of action research is not a particular methodology, it is that the results must be immediately useable by those who are to produce the media. The onus is on the researcher to choose appropriate methods and then to present the results quickly and in a useable form.

In Botswana, then, action research has proved useful in identifying—and often avoiding—the misunderstandings that arise in media production when people from different backgrounds communicate with one another. It has helped media producers identify distinct audiences, make more precise decisions on the content of their media, assess the literacy levels and media access of various audiences, and collect some feedback on the impact of their media. ■

Reprinted with permission from Reading Rural Development Communications Bulletin 16, *December 1982, University of Reading, Agricultural Extension and Rural Development Centre, London Road, Reading SG1 5AQ, United Kingdom.*

Note: ***About Understanding,*** by Andreas Fuglesang, reviewed in *DCR* #40, is now available from Decade Media Books, Inc., 30 East 42nd Street, New York, NY 10017, USA. The price is US$12.00.

Note: ***Against the Grain: The Dilemma of Project Food Aid,*** by Tony Jackson with Deborah Eade, reviewed in *DCR* #41, is now available from the Institute for Food and Development Policy, 1885 Mission Street, San Francisco, CA 94103, USA. The price is US $2.95, plus $1.00 for postage and handling.

Information Resources:
Places to Contact, Publications to Order

by Judy Brace

The readership of *DCR* is remarkable for the breadth and depth of its interests. We hope that through the newsletter we not only encourage the application of communications media to these varied interests, but that we also foster a spirit of support and encouragement by identifying a variety of available information resources.

We are pleased to see that the Network of Educational Innovation for Development in Africa (NEIDA) continues its good work as a "network of existing innovative national and regional institutions and organizations, brought together so that they may benefit from one another's experiences and expertise." The NEIDA Coordinating Unit endeavors, through a variety of publications, to share the efforts of the entire network: ***NEIDA Information,*** a quarterly bulletin; ***Inventory of Innovations,*** reporting on innovative projects; ***Innovation and Change,*** a series of in-depth studies on important educational experiences in Africa; a ***Directory of National Coordinating Centers Associated Projects and Associated Regional Networks,*** updated periodically. To request further information about NEIDA's activities and publications, write to the NEIDA Coordinator, B.P. 3111, Dakar, Senegal.

Those of you who wish to broaden your readings in the issues of Women in Development may find a new series from the International Labor Office appealing. ***Women, Work and Development*** is the name of the series that includes, to date, five monographs resulting from ILO research and technical cooperation, dealing with "issues related to the actual and potential roles of women in development—particularly their economic contributions and how these are changing as a result of their own efforts. . . ." and external policies. To request a publications list, U.S. readers may contact the Washington branch of the International Labor Office, 1750 New York Avenue, N.W., Washington, D.C. 20006, USA, while readers abroad may write to ILO Publications, International Labor Office, CH-1211 Geneva 22, Switzerland.

Information management is a concern of many of *DCR's* readers. The issues of technology transfer, information flows, and informatics, are all timely and underlie many development activities. A very worthwhile membership organization, Data for Development (DFD), attempts to give form and order to all these interrelated issues. Data for Development has as its general aim, "to study and evaluate the role of information in economic and social development, and to promote international cooperation and exchange of experience in that field." Some of the efforts in which DFD is involved include assisting governments to plan integrated government information systems; developing information systems specifications for integrated rural development; and planning information systems for environmental management. DFD has begun a series of regional seminars that will coincide with regional pilot projects and regional study groups to promote information systems in public administration. To tie all of these activities together, DFD publishes a quarterly newsletter in English. For information about publications and membership, contact the Secretariat, Data for Development, 343 Boulevard Romain Rolland, 13009 Marseille, France.

Readers who work in the areas of health may want to be reminded about the many good resources available from the Institute of Child Health in London. Their Teaching Aids at Low Cost (TALC) has developed and makes available books, slides, flannelgraphs, charts, and other communication aids for health workers. TALC also acts as distributor for the African Medical and Research Foundation (AMREF) publications.

The Institute coordinates the international CHILD-to-Child program that has developed or reported on a whole series of innovative ways in which older children can become involved in the health care and education of their younger brothers and sisters. A recent issue of the program's ***Newsletter*** evaluates results of the program to date, and includes a chart of the ways in which communications have been used in support of new ideas and practices.

Persons working, or planning to work, in health care delivery in developing countries may wish to investigate the four short courses offered regularly by the Institute. For information about the courses, as well as about the TALC and CHILD-to-Child activities and publications, write to the Institute of Child Health, 30 Guilford Street, London WC1N 1EH, United Kingdom.

DCR readers who know Spanish and who would like to learn more about nontraditional higher education in Latin America will be glad to know of the Center for Studies on Media, Education, and Communication

(continued on page 13)

A Communicator's Checklist

1 ***Practical Research in Distance Teaching: A Handbook for Developing Countries,*** by Roger Mitton (Cambridge, International Extension College, 1982), 323 pp.

Developers are often impatient and resentful of research. Action oriented, they see that research efforts take valuable resources away from practical and immediate activities. Roger Mitton's practical research manual should go a long way in winning converts to research which supports the tremendous effort, time, and money that go into good development. With missionary zeal he sets out to transform us into believers in research.

He is too modest when he claims the book is "designed primarily for people doing distance teaching in developing countries." It is true that specific examples are drawn from his experience at the Lesotho Distance Teaching Center, and the examples are stronger for it. Because of its approach to practical research and its lucid organization and style, the book should have wide readership among educational and social development workers.

The book is a well-organized manual. In the opening chapters, it links research to action, action that developers have perhaps already decided is important but for which they don't have all the necessary information to insure success. The major portion of the book discusses research methods that are basic to distance teaching and to many other educational projects as well. The next section demonstrates applications of research in distance teaching, but again the applications go far beyond this one educational sphere. The final section of the book, linking action to research, suggests what happens after the research is completed. This organization enables the reader to choose the portions of the book that are most helpful in his or her work without reading the entire book at one sitting.

The major strengths of the book are its clear definitions and superb organization. Each chapter is preceded by a summary which lists and describes the major topics. These statements do not tell you everything you need to know about the subject, but they indicate clearly whether the chapter is useful and practical for the reader's work. Chapter 5, for instance, is about questionnaires, particularly those used by interviewers. The topics include: what goes on the first page; breakdown of general questions into specific ones; closed and open questions; categorizing answers in advance; pre-coding; bad questions (and therefore good ones); branching; the last page; self-completed questionnaires; and translation. Each topic is covered in detail with specific examples that are generalizable to many situations in which questionnaires might elicit needed information. Sample questions and formats are plentiful.

There is an especially good chapter on processing data. The importance of accuracy and detailed record-keeping are explained rather than preached. From my experience, one of the most difficult points to get across to novice researchers is the importance of accuracy. They are often willing to make sweeping generalizations based on imprecise figures and inaccurate records. Without insulting the reader's intelligence or honesty, Mitton is able to explain the importance of accurate data and how to achieve accuracy. This same chapter explains how to make use of a computer in research. It makes enjoyable reading even if you don't have a computer, and it adds to your general understanding of data analysis.

There are many good researchers but few good writers about how to do research. Mitton is an excellent writer-teacher. One set of instructional materials developed at the Lesotho Distance Teaching Center was a cookery book. I suspect that Mitton learned a great deal from this experience. His practical research handbook reads like a well-written cookbook. The ingredients and quantities are carefully described. If alternatives are acceptable, they are mentioned. The order of activities is clearly indicated as well as an explanation of what happens as a result of each activity. There is nothing equivalent to grandmother's recipes: *Bake until done. A little salt. Season with spices to taste.* At each stage of the research, specific examples are given from the author's experience. The descriptions are clear, the examples understandable to anyone working in education and social research, and the style personal and interesting.

Examples of research methodology that have gone wrong are amusingly described. I felt most sympathy for the researcher whose project was modified beyond repair while he was in bed with tick-bite fever.

The author does not make unrealistic claims for research. He suggests throughout the book that some research is a waste of money because it isn't well thought out, or it is badly designed or conducted. Good research, however, can put facts in place of opinions and delusions. He concludes, "Research cannot guarantee that people will adopt the best policies, but it can bring a bit of realism to their thinking." This manual could go a long way toward convincing developers that research is not only practical, it is possible. ■

Available from the International Extension College, 18 Brooklands Avenue, Cambridge CB2 2HN, United Kingdom, for US$28.50. Price for individuals in Third World countries is US$20.50.

Reviewed by Maurice Imhoof, Senior Project Director, Academy for Educational Development, and Project Director for the AID Radio Language Arts Project in Kenya.

2 ***The Programme-Maker's Handbook or Goodbye Totter TV,*** by Harris Watts, (London, Starstream Books, 1982), 230 pp. Distributed in the USA by Kumerian Press.

The Programme-Maker's Handbook sets out to provide a series of Do's and Don'ts for television production. It incidentally, and perhaps unwittingly, raises the question of whether it is possible to transfer television production skills from one culture to another. Is it possible to isolate purely technical processes from style and substance? Are there television 'arts' which are universal and applicable to every setting? Can one concentrate on technical matters and ignore the vocational environment—career structures, cultural expectations, pay levels, industry status, technical support systems, workloads—or is it reasonable to expect that if one teaches a method of production then these other factors will change and adapt to that method? Is there any point in writing a book of this nature unless it is for a specific broadcasting system in which the environment is propitious or where draconian changes to the system are foreseen?

But first, what is *The Programme-Maker's Handbook* about? It illustrates what not to do through its description of the mythical San Totta Television Corporation, which is the worst of its kind in the world. The introduction states: "The erratic progress of its offerings each evening and its shaky attempts at programme-making soon earned it the

name of "Totter" television." Its staff, General Manager Magnus Vision, Sports Producer Caesar Andante, Current Affairs Producer Eustace Sugar, Commentator Romeo Landmark and Women's Producer Virginia Donna are uniformly awful. Its programs are predictable, superficial and formula-bound.

From using San Totta TV as an illustration of how not to make television programs, Watts then takes the reader through most elements of the process from finding and researching ideas to putting them on film or videotape. He is comprehensive in his approach, clear and concise in his explanations. The second half of the book consists of all the bits he couldn't put in the first half: lighting, sound, legal problems, graphics, finishing with a section called "You want to work in Television?" He writes easily and entertainingly and the illustrations are delightful.

He is very much a BBC product, and worked on prestigious BBC programs. He also worked in Malaysia, Brunei, Nigeria, Libya, and Singapore. He states that a Nigerian broadcaster gave him the idea for the book in the first place. One wonders, therefore, who the book is intended for. It claims on the cover to be a "guide for television producers, universities, colleges and schools, amateur film-makers and video enthusiasts", which suggests a Western readership; but the situation he describes is that of a Third World country. The station has a Latin name. The staff went for training overseas, but, says Watts, these courses do not take account of unreliable program services (such as poor cameramen and editors). "Nor do the courses take into account the biggest handicap which Totta producers start with: they haven't seen many good examples of the sort of programmes they are trying to make."

And this is his biggest conceptual problem. He states elsewhere that San Totta Television follows formulae in its programming, and rightly says that formulae are constantly being replaced by those who developed them, implying that there is no single way to produce a program. But he implies, by referring to "good examples" of television programming, that there *are* "proper" ways to produce programs and that San Totta does not follow those methods. If he is writing for a British reader, then his judgements are appropriate, although his use of San Totta Television as an illustration seems unkind and unnecessary. If his readers are to be Third World practitioners, then one must question his judgements as well.

The values of the book are British. I happen to approve of them because I grew up with the BBC as my model. I agree that programming should be both entertaining and informative, but the most rudimentary surveys of broadcasting overseas show that others do not agree. Most programming in African countries, for example, tends to be either entertaining or informative, and the mixtures vary between 70 percent and 30 percent for either depending on the country. Most Latin American broadcasting opts for more entertainment programming because most stations there are commercial rather than government owned. Similarly, *styles* of broadcasting in Africa favour discussion programs, 'talking heads.' Whether this is because there is a heritage of discussion in some African societies which has long been replaced in Western societies, or because the programs are quicker to produce and therefore meet the exigencies of providing a substantial proportion of production locally out of a single studio, I don't know. If one also accepts that the alternative that is financially feasible is to import old "Lucy Shows," or solemn science programs that extol the technological wizardry of the countries that provided them, then perhaps the local talking heads using local languages are not such a bad idea. I am certain that Watts' judgement that the reasons are laziness, ineptitude, or a lack of imagination (which underlie San Totta) tells only a fraction of the story.

Television is an urban, middle-class phenomenon in most less-developed countries. Watts suggests that these viewers see *Kojak* and complain that indigenous productions lack its polish and verve. He is correct, and while television remains inaccessible to the rural poor, there may be nothing wrong with aiming at *Kojak* or BBC production values. But there is a danger in institutionalizing these values. When television spreads its signals more widely, it may discover that "quick and dirty" production methods are more appropriate to the needs of the country and that more authentic cultural values are demanded. The precedent lies in radio programming: radio programs for farmers astonish Western ears by their apparent dullness and the avidity of the listenership; Indian farmers criticized farm programs for their lack of relevance and truth when producers used actors to boost the entertainment value. The point is not that dullness is a virtue, but that it may not be the vice that those brought up in the British tradition of broadcasting assume.

It should be stressed that there is much in the book that is helpful and practical. Watts' emphasis on planning and research cannot be faulted, although it may not always be feasible. But to say that a jump-cut is bad is to reflect a convention. A jump-cut may not look "bad" to someone visually illiterate in Western conventions, merely incomprehensible. But so may the telescoping of time by the use of cutaways, which seems perfectly acceptable to us.

I wish someone of Mr. Watts' experience and writing ability would undertake research into what *is* universal in television production practice and link it to the critical factors of system organization. Such research would be invaluable since it would prevent the endless process of reinventing the wheel every time a production course is mounted for a new broadcasting institution. ■

Reviewed by Michael Laflin, who worked in radio and television in Kenya, and is currently with the Institute for International Research which is assisting the Government of Liberia to develop a network of rural radio stations.

Available from Kumerian Press, 29 Bishop Road, West Hartford, Connecticut 06119, USA, for US$20.90 hardback, $12.50 softback.

3 ***Women and Development: Guidelines for Programme and Project Planning***, by Caroline Pezzullo (Santiago de Chile, Comisión Económica para América Latina, CEPAL, 1982), 123 pp.

This book is an indispensable manual for development planners in general and development communicators in particular. It provides an ingenious, step-by-step game plan for women to become involved as "free and equal partners" in the development process. Three interrelated steps are seen as fundamental: 1) *awareness* of the facts of a 'situation'; 2) *assessment* of their causes and desired changes; and 3) *action* (individual and group) to close the gap between the two. Only through these steps can women participate fully in development at the community, national, regional, and international levels, and overcome their historical inequality. Communications, furthermore, is seen as the "lifeline" of the whole process, a mechanism for social change through which people share "information, knowledge, experience, ideas, skills, motivations and aspirations."

Women and Development was originally prepared for the Caribbean Regional Training Workshop in Programme/Project Planning Skills, funded by the Voluntary Fund of the United Nations Decade for Women and held in Barbados from June 14 to June 26, 1981. This volume also includes the many theoretical and practical planning questions discussed at the conference. It is divided into two parts: Programme Planning and Project Planning. In the first, guidelines are given for national organizations, either governmental or voluntary, to organize their program plans. In the second, community-based projects are discussed. National-level projects that may be essential to program objectives, such as those influencing policy, legislation or the mass media, are also suggested. The focus in Part II is on linking women in the community to the broader picture of national development activities. Throughout the book, specific steps for developing program plans and for involving women in the various stages of project identification, implementa-

(continued on page 10)

(**Checklist** continued from page 9)

tion, and evaluation are explored.

Women and Development is intended as a flexible reference manual for national planners and program officers from a variety of governmental, non-governmental, and voluntary organizations. It has multiple uses: besides aiding in program planning, project identification and implementation, and proposal writing, it can help women's organizations create income-generating activities and serve as a management tool or as a practical guide for organizing workshops on any aspect or level of the development process.

The volume is itself an outstanding example of effective communication. It invites participation by including an evaluation sheet of the volume as well as exercises that allow the reader to identify the application of the suggested steps in the planning process. In addition, the book addresses the reader in a personalized, friendly tone. The precise but simple language contributes to the overall impression that development is not just a remote phenomenon decided on by unknown planners, but a process that can be initiated and brought to fruition by women themselves. Finally, appendices provide comprehensive and conveniently organized lists of related reading materials and resource organizations. A so-called Impertinent PERT chart (for Program Evaluation and Review Technique), allows women to break down organizational tasks into easily identifiable categories and simple units.

Caroline Pezzullo has done a formidable job organizing and presenting this material. Although the proof of its utility will be in the programs and projects women design and implement, *Women and Development* is inherently valuable. It suggests a way to forge links between professional women with organizational experience and community women with practical knowledge, facilitating the participation of women at many levels of development. Since communications is seen as crucial to every phase of this process, moreover, the volume is especially useful to development communicators, as well as to developmentalists in general. Indeed, *Women and Development: Guidelines for Programme and Project Planning* ought to be required reading for all those who support the goals of the United Nations Decade for Women: Equality, Development, and Peace. ■

Available for US$6.00 per copy from United Nations Publications, Room A-3315, New York, NY 10017, USA or from the Palais des Nations, 1211 Geneva 10, Switzerland.

Reviewed by Joan Dassin, Assistant Professor of Communications at Fordham University and Research Associate, Institute of Latin American and Iberian Studies, Columbia University.

New Booklet Available

The United Nations Department of Public Information has published a new booklet, illustrated with photographs, drawings, and newspaper articles, entitled "Improving Communications about People with Disabilities." The 18-page booklet grew out of the recommendations of a United Nations Seminar, held in June 1982, on the role of the information media in helping to accomplish the goals of the International Year of Disabled Persons. Seminar participants were disabled and non-disabled specialists in the media and in rehabilitation fields.

The group developed guidelines to help people working in the media to improve public perceptions of people with disabilities. Those guidelines, as well as examples both of constructive and harmful publicity, are included. The booklet is in English, and is available free from the United Nations Division for Economic and Social Information, Department of Public Information, New York, NY 10017, USA; or from Rehabilitation International, 432 Park Avenue South, New York, NY 10016, USA. ■

(**Low-Cost Materials** continued from page 4)

The workshops tried to blend theory with practical work. Discussions were always related to production exercises, and most workshops followed a pattern: on the first day, participants learned how to design a survey instrument, which they then took into the field to discuss and find out learners' needs. From the survey results, the participants planned learning materials. After mastering production skills, they produced the first drafts which they took back to the learners for pretesting. The last few days of the workshop were spent on revision of the learning materials produced and on final production. The highlight of the workshop was the exhibition of the materials the participants produced, which included booklets, picture cards, work cards, syllable cards, posters, and pamphlets.

One year after the pilot project, it was decided the projects should be expanded to cover the whole country. A national trainers' workshop was organized in Mombasa for two weeks in October 1981 to train trainers for the second phase of the project. During the two weeks, participants, who were drawn from all the administrative provinces of Kenya, were taken through the low-cost curriculum. As well as learning a variety of skills in low-cost materials production, they learned how to organize a low-cost training workshop so they could go back and present training workshops in their own districts.

By the end of 1983, it is projected that workshops will have been held in all the districts in the country. The Department has been monitoring the project closely, and it is hoped a major evaluation can be carried out towards the end of 1983.

Observations

There is a lot of evidence which shows that relevant and cost-effective materials can be produced locally. Such materials, if well designed, can make the education being provided more relevant for individual and community development.

Our experience from the low-cost project has shown that low in cost does not necessarily mean low in quality. We have come to realize that a waste biscuit packet can be turned into a beautiful card; a waste detergent carton can be turned into a picture card using charcoal and soil. We have realized there is a lot of talent among our teachers; some are born artists, others are good at writing stories, while some are good at caligraphy. It is this combination we have been looking for at the grassroots level, whereby a supervisor can get together with a few teachers and produce high-quality learning materials locally.

There are signs that the project is having a multiplier effect. Originally, the Department had planned to train only the full-time teachers, but observations in districts where training has already taken place show part-time and self-help teachers have also benefited. Most of them are now designing and producing word and syllable cards.

It is obvious that the success of the low-cost print project will depend very much on the availability of funds which will make it possible to train teachers in the remaining districts. Observations have also revealed the need to train officers who are in charge of the literacy program at the district level to ensure efficient coordination.

Apart from the obvious benefit of training teachers in new approaches to materials' production, the project has taken learning closer to the community, since before they can design materials, teachers have to carry out a learners' survey to find out learners' interests.

There is no doubt that enormous economies can be achieved by simplifying the production of teaching materials. Our experience in the low-cost project has shown that Third World countries do not have to be trapped in the web of modern education technology. There is need for continuous search for a technology which is appropriate both in cost and in meeting local educational needs. Low-cost print can be one way of achieving that technology. ■

Murithi Kinyua is an Education Officer and Graphic Designer with the Department of Adult Education, P.O. Box 30117, Nairobi, Kenya.

(**RADECO** continued from page 1)

The RADECO program does not require classrooms. Its "capital" is its radio lessons, which can be used repeatedly over many years. The estimated recurrent cost of transmitting RADECO lessons and maintaining the required network of support for 120,000 students is slightly over $3 million yearly.

Community Survey

In designing the RADECO project, it was critically important to assess the actual needs of the unserved communities in the mountains of the Southwest Region of the Dominican Republic. The community outreach effort is particularly crucial in a program of nonformal education. While RADECO's "teacher" is the radio program it broadcasts, a human infrastructure must be created to complement the instruction.

The Project team began by visiting the remote communities and simply talking to the people. The team was surprised to learn that the *campesinos* saw education as their most urgent need. The people living isolated lives in the mountains wanted to be able to write a letter to a friend in a nearby community, to read an obituary notice about a relative in a newspaper, and to shop in the local grocery store without fear of being cheated.

Extensive micro-community research was conducted, using local outreach people trained in data collection by Project staff member Anne Olsen and a part-time consulting anthropologist. The social reality which they explored helped to shape the curriculum and its delivery system. Because children in the region begin work at age five or six, radio lessons would have to be broadcast at the end of their workday, between 4:00 and 5:00 in the afternoon. Health and nutrition information are basic to survival, so the team decided to incorporate health and nutrition content into the radio lessons. The team made the decision to recruit paraprofessionals solely from the communities in which they lived because rains and mud make the communities physically isolated at certain times of year. They tried to recruit primarily women, because many households are headed by single females who have the full responsibility of supporting themselves and their children. In addition, the team found that female paraprofessionals would be much less threatening to students and parents being served by the radio lessons.

After three or more visits, the outreach team asked the communities to help by suggesting candidates to become *radio-auxiliares,* by listing potential students, and by suggesting possible sites for the *enramada* or shelter that would protect the children from the sun and rain as they listened to the radio broadcasts. Thus the communities were involved in the decision-making process and made contributions of goods and labor.

Nonformal Education

Nonformal education, by definition, steps outside the formal structure. The educational message can be delivered in several alternate forms, the most typical of which is by radio. Such nonformal education projects as ACPO in Colombia and Radio Santa María in the Dominican Republic use radio to teach basic literacy and numeracy skills to motivated adults with high rates of success. RADECO differs from such programs in one crucial way: the RADECO student is not an adult, but a child. The unique needs of children require a more specifically aimed program of instructional materials and support services.

RADECO faced the task of incorporating instruction in mathematics, reading, and writing; in social studies and health segments; and in entertainment and physical exercise, for an entire grade-level into a single, daily, hour-long broadcast. The resulting program had to be fast-moving enough to hold the interest of a seven-year-old child and, at the same time, fit a sufficient amount of instruction into each broadcast so that the required skills would be learned. Ostensibly one-half of the program instructs in the skills of mathematics, and the other half in reading and language capabilities. In practice, each portion will contain social studies and science messages incorporated directly into reading and math sequences. Participatory physical exercises and brief entertainment sections (consisting of a song or a joke) will break instruction into segments small enough for a child to assimilate. Each lesson is written according to a schema which focuses on several skills. The radio lessons will emphasize a specific skill until the qualitative and quantitative results of testing prove it well learned.

Desirable Qualities

Their outreach work with the communities involved with the RADECO Project has led the team to identify a number of qualitative characteristics that a nonformal education program should have.

If education is seen as a development intervention rather than simply the linear expansion of the formal school system in some new form, then the Project:

1. Will provide low-cost employment opportunities for the parents of its clients;
2. Will be reasonable enough in its recurrent costs so that it can be broadly disseminated with the available government financial resources;
3. Will be truly participatory in the sense that the communities themselves will determine the management, selecting their *radio-auxiliares,* the location of the services, and their contribution to the Project;
4. Will use the radio not only to instruct in the basic academic skill areas, but will support social development activities that will directly benefit the lives of children and parents;
5. Will base its radio lessons on a knowledge of local circumstances, indigenous experience, cultural strengths to be celebrated, and social problems to be solved;
6. Will consolidate its services with the services of other ministries and other agencies working in the same region on different aspects of the same problems;
7. Will be prepared to expand into new areas such as the intermediate grades to meet needs such as better nutrition, hygiene, and health.

RADECO is one part of the effort to build a productive social and economic infrastructure in the Southwest Region. It is not an "experiment," although it may have innovative components to it; it is not an isolated sectoral program; and it is not an *ad hoc* organization which will disappear at the end of the Project.

Testing and Evaluation

RADECO began broadcasting in January 1983, and is currently serving 1,000 children in 23 communities. The project is using the formative evaluation model developed in Nicaragua for the Radio Mathematics Project by Jamesine Friend.

The process of formative evaluation is crucial to the development of the radio lessons. Rather than stockpiling a year's worth of broadcasts and subsequently testing to determine if children have mastered the required objectives, the developing and testing of lessons go on simultaneously throughout the year. Children in select communities are tested every week in order to determine their grasp of certain skills. If a sufficient percentage of students demonstrates knowledge of those skills, the step to instruction in more sophisticated tasks can be taken. If not, emphasis on the former objectives will be maintained. Thus, in the course of a year, a series of lessons are developed that have already been demonstrated to teach children the objectives set at the beginning of the program.

The Community-Based Radio Assisted Non-Formal Educational Project in the Dominican Republic (RADECO) has discovered an important variable in the course of its base line testing which attests to the effectiveness of another nonformal educational project in the Dominican Republic.

Project staff are pretesting entering first grade students in formal schools as well as in the Project's study centers. The team observed marked behavioral differences from classroom to classroom at different schools. Also, test results appeared to be significantly different.

The coordinator of the Project's evaluation component and his colleagues identified

(continued on page 15)

On File at ERIC

Recent entries in the ERIC (Educational Resources Information Center) files reviewed in this column are concerned with geographic and cultural factors in educating the isolated populations, audiovisual materials, educational radio, school libraries and development, and minicomputers for information handling. All are available on microfiche and in paper copy from the ERIC Document Reproduction Service (EDRS), P.O. Box 190, Arlington, Virginia 22210, USA.

● Broadbent, R. F., Ed. ***Education of the Isolated: Geographic and Cultural Aspects. Selected Papers from the 22nd Annual Conference of the Australian College of Education (Alice Springs and Darwin, Australia, May 14–20, 1981).*** 1981. 123pp. (ED 223 245)

The 11 papers in this collection focus on isolation in education, with emphasis on problems associated with geographical remoteness and with socio-cultural barriers which also give rise to isolation. Five papers concentrate on distance education and possible measures for its use in social and educational processes to deal with isolation; readers are cautioned not to be too optimistic about technological solutions. The establishment of a national center for researching problems and finding solutions to the provision of education in rural Australia is described, and the concept and operation of the Open University and its success in developing distance communication methods are discussed. Other papers consider barriers to education posed by cultural differences, language, social background, and socio-political structures. Four of these papers deal with specific areas of Australian isolation related to Australian Aborigines, in particular, and include reviews of specific programs and research projects. Available from the Australian College of Education, 916 Swanston St., Carlton, Victoria 3053, Australia, for $6.50 plus postage, or from EDRS in microfiche only for 97¢.

● Donoghue, Beverly Emerson. ***Textile Visual Materials: Appropriate Technology in Action.*** 1982. 14pp. (ED 222 188)

An innovative educational medium—screenprinted visual aids on cloth—is one alternative to conventional media in Africa, where visual materials are important communication tools but conventional media and materials are often scarce. A production process for cloth visual aids was developed and evaluated in Ghana and Sudan through the implementation of several experimental projects. Unlike paper and electric/electronic visual media, cloth is familiar and can be locally produced with unskilled labor. Results indicate a preference for this type of cloth-based visual aid over conventional paper ones, and printing was found to be economically feasible if done on a mass-production basis. Since 1972, economic and political stability in Ghana have deteriorated, producing a more urgent need for locally developed products. A feasibility study conducted in 1980 found cloth in short supply and need for visual materials large; however, for educational purposes, a supply of cloth could be provided. In Sudan, the development of textile visual aids is more advanced, with all materials needed available locally. The approach is significant in that, instead of transplanting a Western communications medium, the strategy takes advantage of local materials and resources. Available from EDRS in microfiche for 97¢ or in paper copy for $2.15.

● Nguchu, Ruth Rukunga. ***The Extent to Which Radio Is Used in Teaching of Home Science in Urban Primary Schools in Kenya. African Studies in Curriculum Development and Evaluation. No. 30.*** 1981. 48pp. (ED 222 193)

This study surveyed parents, headmasters, and home economics (home science) teachers from 12 primary schools in Nairobi to collect information on the extent of radio use in teaching home economics, the reasons for use or non-use, and parental attitudes toward educational radio programs in general. Upper primary (standard 4–7) home economics teachers completed a questionnaire, while information from headmasters and parents was gathered through interviews and discussions. Results based on a small sample show that few schools used home economics radio lessons, and that the subject is not even taught at some schools. Many teachers trained to use radio lessons are not using the programs, and some are unaware that the programs exist. Survey results indicate a need for more broadcast and program materials, slower program pacing, audiotapes of the programs, teacher inservice training, more radio receiving equipment, and more home economics classrooms. Available from EDRS in microfiche for 97¢ or in paper copy for $3.90.

● Beilke, Patricia F. ***School Libraries and Priorities for Development: Selected Comments.*** 1980. 18pp. (ED 222 164)

This paper examines the establishment and development of school libraries within a context of international educational improvement and proposes three discussion questions for the meeting of the Section on Statistics of the Management and Technology Division of the International Federation of Library Associations (IFLA). The paper is divided into nine sections, which discuss: the purpose of school libraries; the improvement of school libraries and education; the familiarization of teachers with school libraries; the training of persons to establish school libraries; the educational program for school librarians; the necessity for joint planning by teachers and school librarians; the need for stimulation of the development of school library materials and equipment; the availability of computer technology to school librarians; and the collection of school library statistics. The paper also identifies three questions for later discussion, including IFLA contributions to the Unesco and World Bank education sector analyses, IFLA guidance of needed experimental projects for education, and IFLA support of a specific proposal to assist Nicaragua to form an association for professional librarians and develop a system of gathering and reporting statistics. A list of 14 references is provided. Available from EDRS in microfiche for 97¢ or in paper copy for $2.15.

● Griffiths, José-Marie. ***Application of Minicomputers and Microcomputers to Information Handling.*** 1981. 105pp. (ED 222 199)

This Unesco study assesses the application of both minicomputers and microcomputers to information-handling procedures and makes recommendations for automating such procedures, particularly in developing nations. The report is based on a survey of existing uses of small computing equipment in libraries, archives, and information centers which was conducted from October 1979 to May 1980. Following a description of report aims and layout, a discussion of the impact of computer technology on information handling traces the history of the relationship between computers and information systems, and outlines historical changes that have occurred in computer technology. Examples given of small-scale computing equipment usage in information handling deal primarily with microcomputers and include unusual projects. Other chapters clarify terminology and formulate definitions, identify basic components of minicomputer systems in terms of equipment selection criteria, discuss current trends in information systems and services development, and predict changes which will affect information handling. The effect of these changes on information professionals and educators is considered, and recommendations are made for further investigations, education and training requirements, and standards for systems and documentation. Report annexes provide additional information on terminology, minicomputer manufacturers, and microcomputer systems. Available from EDRS in microfiche only for 97¢. ■

Barbara B. Minor, Publications Coordinator, ERIC Clearinghouse on Information Resources, School of Education, Syracuse University, Syracuse, New York 13210, USA.

(**Brace** continued from page 7)
(CEMEC). The Center plans to collect reports, studies, theses, and other documentation that will be made available to professionals in the fields of educational and social communication. They will also provide a central connection between national distance teaching organizations throughout the hemisphere. A recent issue of their journal (publication frequency is unclear), ***Medio Educación Comunicación,*** contained articles on alternative education, creativity in nonconventional systems of education, an overview of the past decade of educational technology in Latin America, regional cooperation on distance education at the university level, as well as academic research reports. For more information about the Center's activities or to request the journal, write to CEMEC, Casilla 137, Sucursal 2, 1402 Buenos Aires, Argentina.

DCR readers of French may wish to avail themselves of an annual publication of abstracts of French language communication documents: articles, books, research reports, government studies. ***Bibliocom,*** in some two thousand entries, gives coverage to communication theory, research, mass media, telecommunications, interpersonal communications, and provides exhaustive headings and cross references to ensure easy access to the materials. ***Bibliocom,*** published by the Université Laval in Quebec, should be of particular use to academic institutions and researchers, and those who wish to keep abreast of what's being written about communication in French. For information about ***Bibliocom,*** readers may write to INFOGES Inc., P.O. Box 1845, Succursale Place d'Armes, Montreal, Canada H2Y 3L9.

A major reference work from the United Nations is a two-volume ***Directory of United Nations Information Systems.*** To provide access to the information gathered and disseminated by the organizational members of the U.N. family, this ***Directory*** is a carefully revised version of an earlier edition with special attention given to design and organization. The results of this attention are impressive.

Volume I is devoted to "Information Systems and Data Bases," and is available in either English, French, or Spanish. Each of the U.N. member organizations that provide public information is listed and described (35 are included), and all information systems and databases within each of these organizations are profiled on a single page with uniform data. The kinds of information available from the United Nations range from the Fertilizer Advisory, Development, and Information Network for Asia and the Pacific, to the Outer Space Affairs Division Reference Collection, to the Aquatic Sciences and Fisheries Information Service, to the Photo Library of the International Telecommunications Union. The profile of this latter entry reveals that the ITU Photo Library has a collection of 10,000 photographs in black-and-white and in color; that it makes these available to the mass media, training institutes, and the ITU publications service; and that it issues an annual catalog.

Volume II of the ***Directory*** is a tri-lingual listing by country of where "input centers or contact points . . . and depository libraries" are to be found. Because of the complexity of the information contained in this volume, there is careful use of uniform acronyms, International Organization for Standardization (ISO) codes, and special symbols and graphics, to guide the user through the material. This is a resource that no information service should be without. Once received, it should not be shelved and forgotten, but be kept at hand, and the sources tapped. To order the ***Directory of United Nations Information Systems,*** contact the Inter-Organization Board for Information Systems, Palais des Nations, CH-1211 Geneva 10, Switzerland.

In an effort to encourage communication support in projects designed and/or funded by the World Bank, the Bank has issued Heli Perrett's study, ***Using Communication Support in Projects: The World Bank's Experience.*** The best aspect of this study is the acknowledgement that projects whose aim is to motivate human action in a development activity will benefit from the design and incorporation of a communication component. Dr. Perrett has carefully identified benefits and difficulties, especially within the Bank context; she has provided planning frameworks, support functions, Bank sector experiences, and media selection criteria.

Annexes include communication support spending per Bank project; a "problem analysis" to clarify project needs before building in communication support; a table of advantages and disadvantages of different media and their applications; and the outline of a Bank communication support training course. This is a well-balanced presentation, providing development program planners with the kind of information that makes understandable the nature and purposes of sectoral applications of communications. This World Bank Staff Working Paper Number 551 is available for US$3.00 from World Bank Publications, 600 19th Street, N.W., Washington, D.C. 20433, USA.

A serious need to be addressed by a literacy program is that of making available appropriate reading materials to encourage the development of the newly learned skills. The International Reading Association has published, in Spanish, a four-step manual on developing reading materials for the newly literate, ***Cómo Crear Materiales para Neo-Lectores.*** Divided into "working with others," "assessing needs," "making print materials work," and "are the materials doing their job?" the manual can go a long way toward reassuring community organizations that development of print materials for new readers is within their capacity. I suspect that there is perhaps too much text and too few illustrations, as well as a tendency to explicate rather than to get on with production techniques. However, since there is probably very little on this subject available in Spanish, this publication's usefulness will outweigh its somewhat awkward translation from the English, and will provide much-needed guidance to support new readers. ***Cómo Crear Materiales para Neo-Lectores*** is available for US$4.00 from the International Reading Association, P.O. Box 8139, Newark, Delaware 19711, USA.

One of the richest sources of information on distance education is the British Open University. There is a strong commitment there to sharing research and empirical findings, from which we can all benefit. Their Distance Education Research Group (DERG) is putting out a series of papers (DERG Papers) that belong in any serious collection on the subject. The first paper, ***The Credibility of Distance Education,*** addresses all the issues that come up with regard to the acceptance of the notion of successful education at a distance. A fairly technical discussion of ***The Admission System in Distance Teaching Institutions*** constitutes Paper Number 2. Paper Number 3 is in two parts, ***The European Experience of the Use of Mass Media, and Distance Methods for Adult Basic Education,*** Main Report and Appendices. This is a thorough review of the planning, design, and implementation approaches to adult basic education delivered via media and other techniques at a distance.

A very nice case study of the Costa Rican State Distance University is the subject of Paper Number 4. The careful planning and growth of this institution should be considered by any country planning a similar venture. A compact overview of the Open University itself is the subject of Paper Number 6, ***The Open University of the United Kingdom: An Evaluation of an Innovative Experience in the Democratisation of Higher Education.*** Paper Number 7 is a case study of the ***Empire State College/State University of New York Center for Distance Learning.*** All these papers, and information about other publications of the Open University, are available from the Distance Education Research Group, the Open University, Walton Hall, Milton Keynes MK7 6AA, United Kingdom. ■

Judy Brace is the Acting Director and Resource Center Manager of the Clearinghouse on Development Communication.

Radio Formats Offer Choices

by Esta de Fossard

Esta de Fossard's article on Radio Listening Groups in DCR *39, September 1982, was received with enthusiasm by our readers around the world. In this current article, the author discusses the variety of formats available for informational radio programs.*

Drama: A drama is a fictional work in which the actors play the parts of believable people engaged in realistic activities. The story develops through what the characters say to one another. Sometimes sound effects are used to help the audience understand the setting of the play or certain events in the play—for example, the sound effect of fire crackling may be used to help the listeners understand that the drama is dealing with a fire in a village. Drama is a very effective format because it allows the listeners to become personally involved in the lives of the people being portrayed by the actors.

Story: In this type of program, a narrator (or storyteller) tells the story. There are no actors playing the parts of the characters; the narrator is the only person we hear. Sometimes the narrator might alter his or her voice as he reads the speeches of the various characters in the story, but where the drama uses a number of actors, the story uses only the one narrator who reads or tells the story to the audience.

Interview: In this type of program, an announcer or a reporter asks questions of someone—usually someone recognized as an authority in his or her field. The questions are designed to encourage the interviewee (the person being interviewed) to give the listeners the type of information they need to understand the topic. In an interview program, the listener can hear both the interviewer asking the questions and the interviewee giving the answers.

Discussion: This program will use a number of authorities giving their views on a particular topic. It is also called a "panel discussion program." A panel discussion often uses a chairman or a moderator to control the discussion and direct specific questions to the various members of the panel.

This program format is particularly suited to a topic that has more than one acceptable point of view. For example, the question of family planning is a suitable topic for a panel discussion—there are those who will speak in favor of it and those who will speak against it, and there is really no definite right or wrong answer in every situation.

Speech: A speech is a formal presentation by an important authority. It is usually delivered by a person in high position on an important occasion. It is rare that a speech is used as a format for delivering the type of information that would be used by a radio listening group. A more suitable format would be the

Talk: A talk is a less formal version of a speech. It is usually given by someone who is a recognized authority in the field and may contain opinions as well as facts. This makes it very suitable for use by a radio listening group who can air their own feelings about the speaker's opinions.

Magazine: A radio magazine program does much the same things as a printed magazine:

a. it presents a number of different ideas on *one* particular topic, *or*
b. it presents a number of different ideas on a variety of different topics.

A radio magazine program can combine a number of different formats—for example, you might find a short drama, an interview, a news announcement, and a spot (see below) in the same magazine program.

News: As its name indicates, a news program gives information on the latest news—things that are happening *now*.

Documentary Feature: A documentary (or feature) takes an event that has happened *in the past* and makes a special program of it in order to highlight particular points that the producer would like the audience to be more aware of. Sometimes the subject of a feature will be set in the future, in which case the feature is making some suggestions about future possibilities, rather than reporting on some real event that happened in the past.

Spot: A spot is a very short announcement (usually no more than three minutes) that gives only the most important information on a particular topic. The Health Department, for example, might run a series of spots to remind people to have cholera shots.

Jingle: This is similar to a spot, but it is set to music. A jingle is often associated with advertisements, but the use of any message set to music can be a very effective way of catching the audience's attention.

Quiz: A quiz is an interesting way of inviting an audience to find out how much they kno on a certain topic. There are two types:

a. the quiz where two or more teams compete against one another in answering a set of questions. Usually a prize is given to the team that answers the most questions correctly.
b. the quiz where one announcer poses the questions . . . then a 10-second pause is left in which the audience can attempt to answer the question in their homes, and then a second announcer gives the right answer.

Question & Answer: This type of program can be done by inviting listeners to send in questions by mail, or to record their questions on tape for a visiting reporter. In either case, the radio program provides an expert or experts to give the answers to the questions posed by the audience. It is important to exercise tight control over a question and answer program, so that people do not abuse the airwaves by using the program to air all sorts of gripes and grievances. ■

Esta de Fossard is an international media consultant specializing in informational radio and television. She is the author of many books and articles.

Housing Finance Software Package

A Housing Finance Software (HFS) package has been developed by the United Nations Centre for Human Settlements (UNCHS/Habitat) to assist small housing and site schemes in financial management and reporting. The HFS package is designed to store a financial database derived from individual account transactions, and to manipulate the database so that organizations are provided with account and management reports. The HFS can handle both loan and savings accounts.

HFS can be used by any housing finance organization to create a loan accounting database; a savings account database; a monitoring schedule for loans; a loan repayment schedule; a loan default notice and list; and a number of management reports regarding the financial status of daily operations. In addition, HFS can generate 15-, 30-, and 60-day management reports.

HFS is intended to run on a 64 Kbyte microcomputer with a minimum of 1,200 Kbytes of disk storage. Up to 7,000 accounts can be in the database using current, widely available disk storage devices. The software is written in CBASIC and is intended to operate with any CP/M operating system (Version 2.2 or later).

HFS is provided free of charge to any nonprofit, parastatal, or government agency. UNCHS will assist in advising on hardware, installing the software, and training personnel to operate the system. For further information contact Jerry C. Colner, Advanced Technology Applications Project, UNCHS (Habitat), P.O. Box 30030, Nairobi, Kenya. ■

(RADECO continued from page 11)

the salient variable as participation in the UNICEF preschool program as implemented by the Dominican Ministry of Education in the Southwest Region. The preschool program works with children ages three through six and operates on an expanding basis in the area. It now takes in over 30,000 children in rural areas of the impoverished Southwest.

From the team's observations, children who had attended preschool had no difficulty holding a pencil or using it to mark drawings properly, no difficulty understanding test instructions, little difficulty turning the pages of the test booklet, and were better disciplined than non-graduates. Their test scores, too, were significantly higher than non-preschoolers'. These results are not surprising in the light of the results of the Head Start Program in the United States, and other studies carried out in the Caribbean area.

RADECO has done field-testing of drawings, sounds, and other items to be used in the programs and tests. From student questionnaire forms, staff has found that 70 percent of the students work with their parents picking coffee or doing subsistence farming. Sixty-five percent have had at least one year of formal schooling, and 95 percent listen to the radio (in communities where there are radios; one or two communities without radios have been discovered). All of this field information has helped the team to better design the program.

The evidence continues to point to the fact that a nonformal education program can make a significant contribution towards improving educational services in developing countries.

Conclusion

The RADECO Project addresses two concerns. First, it meets some of the pressing needs of the Dominican Republic's Southwest Region, which has the highest rate of illiteracy and the lowest life expectancy of any part of the country. At the same time, it pursues a cost-effective strategy of education that can be implemented in a variety of settings. The concerns are complementary. If a new strategy of education can be developed successfully in the Dominican Republic, there is no reason why it should not be equally successful in other areas which face the same constraints and concerns. ■

Andrew Hanssen is the RADECO Project's Administrative Coordinator; Steven Kozlow is Coordinator of the Project's Evaluation Component; Anne Olsen was formerly the Deputy Chief-of-Party, RADECO Project.

For further information, contact James Olsen, Chief-of-Party, RADECO, Apartado Postal No. 57, Barahona, República Dominicana; or, Donald Foster-Gross, Project Monitor, S&T/ED, Room 609-J SA-18, Agency for International Development, Department of State, Washington, D.C. 20523, USA.

(Radio Baha'i continued from page 16)

and utilization of those services. Radio Baha'i staff discovered that the farmers seldom listened to Ministry announcements broadcast on the government station, did not understand them, and were unable to act upon the information provided in them. In addition, many of the topics being targeted by the Ministry were not perceived as relevant or urgent by the farmers.

On visiting the Ministry, the agricultural program production team from Radio Baha'i was told of the difficulties frequently faced by agents in the field: they live in provincial centers, far from the villages; they visit the villages only occasionally; many experience language barriers; they are viewed with suspicion and distrust. Even under the most favorable circumstances, agents are often solicited to supply the seeds, fertilizers, and equipment that farmers desire but cannot afford.

Given these problems, the radio staff saw an opportunity for the station to serve as an intermediary between the Ministry and the farmers. They wanted to produce a program that both expressed the farmers' needs and provided answers to those needs.

A seventeen-year-old indigenous youth (a graduate of the local agricultural training school) was recruited to serve as the program producer. He enlisted the assistance of two other Otavaleñans, one an older woman, the other an elderly farmer. (Both come from a remote village, are illiterate, and have neither formal training nor previous experience in radio.)

Using a mobil van provided by the CIDA grant, the production team visits villages in the region. Portable tape recorders are taken to homes and fields, and farmers and their families are invited to discuss and record their concerns. In this manner, farmers from a number of different communities are able to express and share their concerns with other farmers in the region. The two older radio staff serve as the moderators for the discussion sessions and provide continuity when the sessions are later edited for inclusion in programs.

Having identified and recorded some of the farmers' major concerns, the staff then visits local Ministry offices and interviews experts about the issues raised by the farmers. Segments recorded on the farms and at the Ministry offices are combined with scripted materials and music into a daily 30-minute program in Quichua entitled "Tarpucpac Yuyay," which roughly translates into English as "The Thought/Knowledge/Opinion of the Farmer." Motivated by the program's innovative approach, one Ministry official has started writing short, informational scripts for inclusion in the broadcast.

The program airs between 5:30 and 6:00 a.m., the period selected as "optimal" by the farmers themselves. Both the farmers and the Ministries have responded enthusiastically. The program provides the farmers with a means of communicating with each other and with the Ministries at the same time that it provides the Ministries with a means by which their assistance can be made more relevant and credible. When first approached by the Radio Baha'i staff, the experts offered information on how to plant wheat and barley. However, discussions with the farmers had revealed that their most pressing concern was the elimination of a plague among their chickens and pigs. When the staff presented this concern to the experts, appropriate and relevant information was provided immediately to the farmers via the radio. In this way, the program is helping to reverse the "vertical" process by which the agriculture development professionals had been addressing rural problems. "Tarpucpac Yuyay" serves as a credible change agent by ensuring that the development messages it broadcasts are appropriate and relevant to the needs of the audience.

Commitment to Indigenous Music

The staff at Radio Baha'i are aware of the station's important role as an educator and disseminator of development messages, but they also are conscious of the need to maintain the station's primary role as the voice of the *campesino*. This role is realized effectively through the use of Quichua, indigenous staff members, and programming that promotes the dignity and value of the indigenous people and their culture. Special emphasis also is given to promoting the role of women in community life and to the education of children. While such policies demonstrate the station's commitment to its audience, the programs' effectiveness is wholly dependent upon the creation and maintenance of a large and loyal listenership. Perhaps the most significant factor thus far contributing to Radio Baha'i's success, and the main reason for its popularity, has been its commitment to playing indigenous music.

A future article will examine the role that Radio Baha'i has played in the revitalization of traditional music among the Indians of the Otavalo region, both through its programming and through its sponsorship of what has become Ecuador's most popular festival of traditional music. ■

For further information contact Marcelo Quinteros, Executive Director, Radio Baha'i, Apartado 14, Otavalo, Ecuador.

Kurt Hein served as the Assistant Director of Canadian International Development Agency's (CIDA's) Rural Radio Development Project in Otavalo. He is currently the Executive Producer of the Academy for Educational Development's Radio Language Arts Project in Nairobi, Kenya.

Community Radio in Ecuador Meeting People's Needs

by Kurt J. Hein

A previous article (See *DCR* 40, December 1982) examined several of the reasons for the popular appeal of Radio Baha'i, a community radio station serving the rural, indigenous farmers *(campesinos)* in the region surrounding Otavalo, Ecuador:

- it broadcasts predominantly in Quichua, the home language of the audience, while other stations broadcast almost exclusively in Spanish;
- most of the staff, including several women, is recruited from among the local people;
- it places a priority on program content over sophisticated broadcast technology; the equipment is a far cry from "state-of-the-art;"
- the staff, many of whom are illiterate, had no prior training in broadcasting.

As a result of these policies, the programs authentically reflect the values, the tastes, and the sounds of the people for whom they are intended. The result is a large, loyal, and responsive audience. This article examines specific programming innovations that have contributed to the station's popular appeal among the *campesinos.*

The Local News Program

One of the programs inspiring listener loyalty is *El Noticiero Local,* The Local News. Because the station's purpose is to serve the rural farmers and to focus on their needs and interests, traditional news stories, such as those provided by the wire services, are avoided. Rather, the station has initiated a twice-daily news broadcast designed to enable villagers to communicate important local events to one another.

Most of the villages are without electricity and are accessible only by footpath, making widespread communication virtually impossible. Therefore, a typical Local News program will include stories about lost children, lost identification papers, lost livestock, community dances, and *mingas,* community work parties. These announcements are broadcast both in Quichua and Spanish and prove to be one of the region's most popular radio programs.

Radio Baha'i broadcasts these messages free of charge; all that is required is that the individual deliver his or her message to the station or to the station's news office in the region's other major town. The most common means of delivering these announcements is in person, meaning that some people may spend half a day or more walking to the station. It is common to see several *campesinos* sitting outside the station offices, having travelled together to deliver their message and to greet the station staff. It is also common to find livestock on the grounds, awaiting the arrival of their rightful owner! In a recent year, more than 2,000 messages were delivered to the station in this manner, representing virtually every community within the station's 50-mile (80 km) broadcast reach.

The news program serves many of the communications needs of the audience and it is also an effective vehicle for the dissemination of development-oriented messages, especially for short-term campaigns. Because of the program's popularity, many civic agencies request to have messages included in it. Short announcements are produced by the station staff for broadcast throughout the day, but the messages achieve their greatest impact when incorporated into *El Noticiero Local:*

- During an outbreak of hoof-and-mouth disease, the Ministry of Agriculture and Livestock asked Radio Baha'i to produce a spot announcing to farmers the nature of the disease and the availability of vaccine. After two weeks, more than 250 head of cattle had been treated, compared to seven during the month prior to the news feature.
- A national campaign was inaugurated to provide identity cards to illiterate *campesinos,* people who previously had been denied this important document. The local Civil Registry reported that the campaign in Otavalo was one of the most successful in the country because it had been promoted on *El Noticero Local.*
- Doctors from a rural health center requested assistance in promoting their offer of free eye care. They returned to the station shortly after the spot began to be aired in the news program to request that the spot be terminated. More than 450 people had come to the clinic the day after the first announcement, more than the clinic could accommodate.

CIDA's Rural Radio Development Project

In 1980, Radio Baha'i was awarded a small matching-funds grant by the Canadian International Development Agency (CIDA). The purpose of the grant was to augment Radio Baha'i's cultural and agricultural programming. Research indicated a disparity between the information and services offered by agencies such as the Ministry of Agriculture and Livestock and the farmers' knowledge about

(continued on page 15)

Development Communication Report

Clearinghouse on Development Communication

1414 22nd Street, N.W.
Washington, D.C. 20037 USA
Tel. (202) 862-1900
Cable: ACADED
Telex: 197601 ACADED WASH

Judy Brace, Acting Director and Resource Center Manager
Heddy F. Reid, Editor
Arlene Horowitz, Program Assistant

ISSN 0192-1312

AED International Division
Academy for Educational Development

18 WCY-83/USTTI; RADECO Project; Botswana Field Research; Puppetry; Information Sources; Radio Outreach